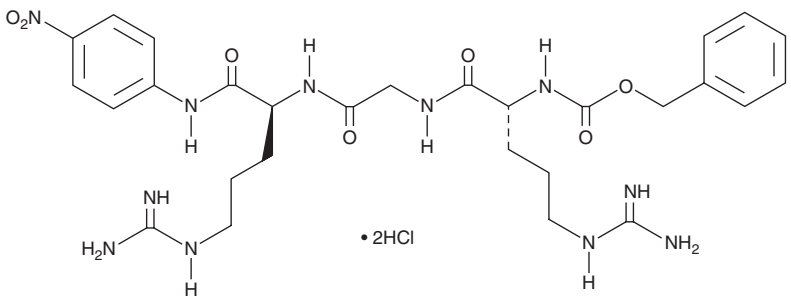
PRODUCT INFORMATION

Z-D-Arg-Gly-Arg-*p*NA (hydrochloride)

Item No. 27583

CAS Registry No.: 113711-77-6
Formal Name: N^2-[(phenylmethoxy)carbonyl]-D-arginylglycyl-N-(4-nitrophenyl)-L-argininamide, dihydrochloride
Synonyms: Benzyl-D-Arg-Gly-Arg-*p*NA, Benzyl-D-Arg-Gly-Arg-*p*-nitroanilide, Factor Xa Chromogenic Substrate, S-2765
MF: $C_{28}H_{39}N_{11}O_7 \bullet 2HCl$
FW: 714.6
Purity: ≥98%
UV/Vis.: λ_{max}: 315 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Z-D-Arg-Gly-Arg-*p*NA (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the Z-D-Arg-Gly-Arg-*p*NA (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Z-D-Arg-Gly-Arg-*p*NA (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of Z-D-Arg-Gly-Arg-*p*NA (hydrochloride) in these solvents is approximately 14 mg/ml. Z-D-Arg-Gly-Arg-*p*NA (hydrochloride) is slightly soluble in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of Z-D-Arg-Gly-Arg-*p*NA (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of Z-D-Arg-Gly-Arg-*p*NA (hydrochloride) in PBS, pH 7.2, is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Z-D-Arg-Gly-Arg-*p*NA is a colorimetric substrate for Factor Xa.[1,2] Factor Xa preferentially binds to and cleaves the Arg-Gly-Arg (RGR) peptide sequence to release *p*-nitroanilide (*p*NA), which can be quantified by colorimetric detection at 405 nm as a measure of Factor Xa activity.

References

1. Gustavsson, S.I. and Arielly, S. New Peptide Derivatives. *KabiVitrum AB* **4,797,472** (1989).
2. Joo, H.-S., Park, G.-C., Kim, K.-M., *et al.* Novel alkaline protease from the polychaeta, *Periserrula leucophryna*: Purification and characterization. *Proc. Biochem.* **36(8-9)**, 893-900 (2001).

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